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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,407

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EXAMINER

ZEMEL, IRINA SOPJIA

ART UNIT

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1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,407	Applicant(s) HATTA, MINORU	
	Examiner Irina S. Zemel	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1-18-2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8-11 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The types of polymeric and elastomeric components A and B are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The components A and B claimed in independent claim 8 are not defined by either their polymeric/monomeric composition, properties, or any characteristics or anything else that can be used to identify the claimed components at all.

It is noted, that the entire disclosure provides support for very limited scope of both components A and B, both based on olefinic polymers.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “obtainable” is indefinite since it is not apparent whether the claimed compound is, in fact, produced by the claimed process.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 3, 8, 10-11, and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,952,427 to Dharmarajan et al., (hereinafter “Dharmarajan”).

Dharmarajan discloses polymer compositions containing 100 parts of EPDM (polymer 7, for example), and metallocene polymerized ethylene polymers, such as

Exact polymers exemplified in Table A, in the amounts of 10-25 phr (see, for example, illustrative examples and figures 1-6). The characteristics of Exact polymer (i.e., density) disclosed in table A fully correspond to the claimed characteristics. It is noted, that the components A is not required to be produced using the claimed catalyst system, as it is claimed in the language “obtainable”, which does not limit, as discussed above, the product by the specific process (rather it only place the limitation that the claimed product could be obtained by such process). In addition, the reference disclosed various catalytic systems for obtaining EPDM and expressly discloses advantages and effects of using different catalyst for forming EPDM on the final product . See, for example, columns 5-6.

The reference further discloses blends of the two polymeric components with additional filler where the total weight of the polymeric components is under 75 %. See examples with clay additives.

The invention as claimed, thus, is fully anticipated by the reference.

Claims 3, 8, 10-11, and 13-17 are rejected under 35 U.S.C. 102(a or e) as being anticipated by Wo 02/085954 to Exxon Mobil Chemical Patents Inc., (hereinafter “Exxon ‘954”)

Exxon discloses polymer compositions containing EPDM (characteristics of suitable EPDM is given in Table 2) and metallocene polymerized ethylene polymers, such as Exact polymers (exemplified in Table 3). The relative amounts of both components fully satisfy the claimed ranges (see, for example, illustrative examples 3 and 4). The characteristics of Exact polymer (i.e., density) disclosed in table 3 fully

correspond to the claimed characteristics. It is noted, that the components A is not required to be produced using the claimed catalyst system, as it is claimed in the language "obtainable", which does not limit, as discussed above, the product by the specific process (rather it only place the limitation that the claimed product could be obtained by such process). In addition, the reference disclosed various catalytic systems for obtaining EPDM and expressly discloses advantages and effects of using different catalyst for forming EPDM on the final product . See, for example, pages 4-6.

The reference further discloses blends of the two polymeric components with additional filler where the total weight of the polymeric components is under 75 %. See examples with clay additives.

The invention as claimed, thus, is fully anticipated by the reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Dharmarajan or Exxon '954.

The disclosure of both referenced is discussed indetail above. The references do not specifically disclose the physical form of the extruded blends, however, it is notoriously known in the art of polymers to cut extruded stands of polymers in granules for ease of transporting and processing of the polymers (polymer compositions) at the

actual processing sites. Thus, it would have been clearly obvious to an ordinary artisan to produce extruded compositions disclosed by either one of the cited references into the claimed granule form for easy handling/transportation of the polymer compositions disclosed in both references. In the alternative, change in size/shape is established to have been obvious as per existing case law.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1,197,521 to JSR corporation., (hereinafter "JSR '521") in combination with US Patent 5,340,840 to Park et al., (hereinafter "Park").

The JSP '521 reference discloses foams obtained from compositions comprising olefinic elastomer, such as EPDM and another olefinic polymer such as LLDPE. The reference disclosed in detail the properties of olefinic elastomer and the methods of obtaining such elastomer in [0010-12], and discloses properties of olefinic polymer in [0013], for example. The reference discloses compositions comprising the amounts of respective components that fully correspond to the claimed amounts (see illustrative examples and comparative examples as well), and also discloses an additional components that can be present in the composition and the blend, in the amounts that satisfies the claimed amounts of components A and B in the "preblends". The reference expressly discloses pelletizing (or granulating) of the polymeric compositions [0044].

The reference does not expressly address the properties of the ethylenic polymer (corresponding to the claimed component B), thus implying that any known ethylenic polymer is suitable for the invention. The single-site metallocene polyethylenes are well

known in the art, as well as their properties and advantages as compared to conventional polyethylenes (similar to LLDPE used in illustrative examples of JSP). This is evidence, for example, by disclosure of Park, who expressly discusses advantages of using single site polyethylenes (copolymers of ethylene and 4-12 alpha olefins) in foams. For example, Park discloses that single site polyethylenes exhibit superior melt tension properties, which are very important during foaming of the polyethylenes, along with other advantages. Thus, it would have been obvious to use single site polyethylenes corresponding to the claimed metallocene polyethylenes in invention of JSP with reasonable expectation of improving the foam quality due to the superior properties of such polyethylenes.

The invention as claimed, thus, would have been obvious from the combined teachings of the cited references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/
Primary Examiner, Art Unit 1796

Irina S. Zemel
Primary Examiner
Art Unit 1796

ISZ